UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,263	01/13/2000	Gunter Halmschlager	P18720	6753

7055 7590 12/13/2002

GREENBLUM & BERNSTEIN, P.L.C.
1941 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER
HUG, ERIC J

ART UNIT	PAPER NUMBER
1731	7

DATE MAILED: 12/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/482,263	HALMSCHLAGER ET AL.	
	Examiner	Art Unit	
	Eric Hug	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,15-37 and 39-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *16-21 and 39-44* is/are allowed.

6)☒ Claim(s) *1,3-13,15 and 22-36* is/are rejected.

7)☒ Claim(s) *2 and 37* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 January 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

The finality of the rejection of the last Office action is withdrawn, as new art and arguments are presented below.

Response to Arguments

Applicant's arguments regarding the rejection of Claims 1-7, 12, 13, 15, 25-28, 30-32, and 36 under 35 U.S.C. 102(b) as being anticipated by Limbach et al (US 3,612,256) are persuasive. Upon reconsideration, the Examiner agrees that the metallic cable supports of Limbach do not comprise long-chain supports, but instead are coplanar warps which run parallel to each other in a single longitudinal direction. The woven binder yarns are not supports for the belt, but serve to prevent transverse movement of the cables. Accordingly, the rejection has been withdrawn. The rejection of Claims 8-11 under 35 U.S.C. 103(a) as being unpatentable over Limbach et al (US 3,612,256) and the rejection of Claims 29 and 33-35 under 35 U.S.C. 103(a) as being unpatentable over Limbach et al (US 3,612,256) in view of Ampulski et al (US 6,251,331) and Stigberg (US 5,196,092) are withdrawn for the same reasons.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 3-6, 13, 15, 22-27, 30, 31, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Magee (GB 2,128,548). Magee discloses a conveyor belt comprising a matrix of woven stainless steel that is imbedded in a plastics material or coated with a plastics material sufficiently to provide a liquid impervious surface on both sides. The belt is made by first providing a wire matrix, providing sheets of polyurethane on both sides, then melting under pressure to fill the mesh and provide a smooth finish. The metallic weave is equivalent to the claimed plurality of metallic long-chain supports, as the weave provides the supporting material for the belt.

2. Claims 1, 3-6, 13, 15, 22-31, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Plyler (US 3,518,104). Plyler discloses a coated casting belt for making sheet products. The belt is a flexible, open mesh metal wire belt that is provided with a silicone based compound to close the interstices of the metal mesh. The interstices are completely sealed to make the belt impermeable to a foamable composition that is applied thereto. The belt is made by providing the mesh material, then coating with a silicone primer and silicone rubber by either brushing, spraying, dipping or rolling. The final surface of the belt is smooth. The metal mesh material is equivalent to the claimed plurality of metallic long-chain supports, as the mesh provides the supporting material for the belt.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Magee (GB 2,128,548) or Plyler (US 3,518,104). In the belts of Magee and Plyler described above, it is reasonable to expect that the wire strands used to create the wire mesh has a round cross-sectional shape. Neither Magee or Plyler discloses using strands of square, rectangular, oval, polygonal, or variable cross-sections. However, the shape of the cross-section is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular shape is significant. See *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (MPEP 2144.04).

4. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plyler (US 3,518,104) in view of Ampulski et al (US 6,251,331) and Stigberg (US 5,196,092). Plyler discloses the smooth belt described above, but does not specifically disclose smoothing the surface by scraping or grinding. However, in processes of applying a resinous coating material to a woven belt, it is well known to smooth the surface by scraping (Ampulski, column 15, lines 28-32) or grinding (Stigberg, column 5, lines 27-44) to obtain a uniform thickness. Therefore, at the time of the invention, it would have been obvious to one skilled in the art to utilize well know processing techniques as taught by Ampulski and Stigberg in order to coat and form a belt with a smooth surface with the desired release properties.

Allowable Subject Matter

Claims 16-21 and 39-44 are allowed.

Claims 2 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 16-18 are allowed, because the prior art does not disclose or suggest a belt comprising a sheet of metallic long-chain supports, a filler material at least partially filling the interstices of the supports rendering the belt fluid impermeable, and beadlike protuberances at the peripheral edges.

Claims 19-21 are allowed, because the prior art does not disclose or suggest a belt comprising a sheet of metallic long-chain supports and a filler material at least partially filling the interstices of the supports rendering the belt fluid impermeable, whereby the surface of the belt comprise the long-chain supports.

Claims 39-41 and 44 are allowed, because the prior art does not disclose or suggest a sealing belt for a dryer in a web producing machine comprising a woven metal screen and a filler material at least partially filling the interstices of the screen rendering the belt fluid impermeable.

Claims 42 and 43 are allowed, because the prior art does not disclose or suggest a process for producing a belt comprising a sheet of metal filaments and a filler that fills the interstices of

the sheet whereby a portion of the filling is scraped from a surface of the filled sheet to expose the metal filaments.

Claim 2 is allowable, because the prior art does not disclose or suggest a belt comprising a sheet of metallic long-chain supports and a filler material at least partially filling the interstices of the supports rendering the belt fluid impermeable, whereby the belt supports a paper web in a web producing machine.

Claim 37 is allowable, because the prior art does not disclose or suggest a process for producing a belt comprising a sheet of metallic long-chain supports and a filler material rendering the belt fluid impermeable, whereby the weaving density of the woven structure is adjustable based on a desired surface requirement. In prior art belts with a woven base, the elastomeric coating is typically applied so that the woven structure is unexposed at the surface, therefore the weaving density is not based on any desired surface requirement.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bosler (US 5,314,325) discloses a support belt for vacuum forming plastics material. In the embodiment of Figure 5, a wire mesh belt is partially impregnated with a silicone-rubber material to form a pattern of permeable and impermeable regions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 703 308-1980. The examiner can normally be reached on Monday through Friday, 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0651.

jeh
December 11, 2002

STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700